

No. 792,247.

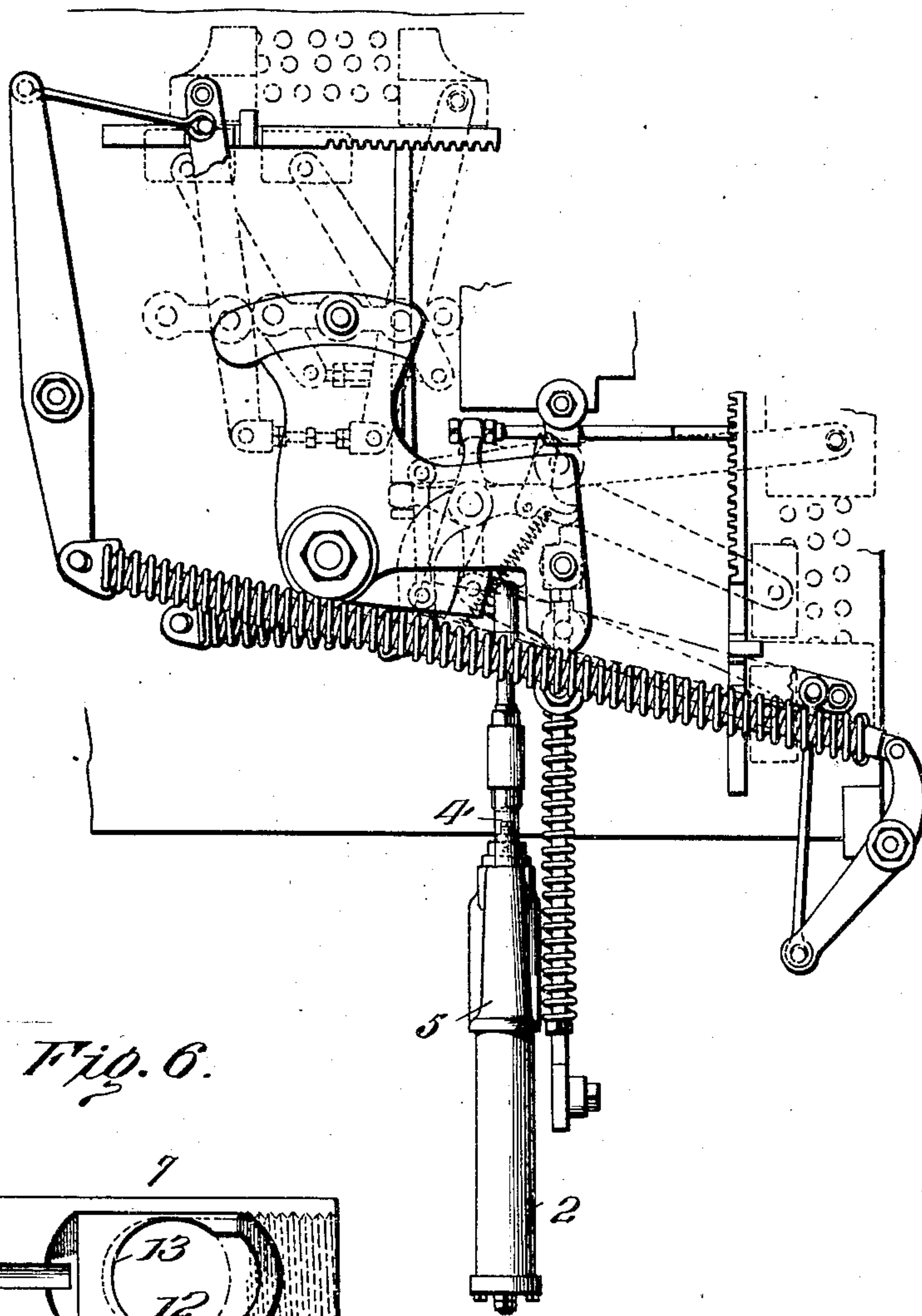
PATENTED JUNE 13, 1905.

J. S. BANCROFT & M. C. INDAHL.  
CENTERING MECHANISM FOR TYPE CASTING MACHINES.

APPLICATION FILED DEC. 1, 1904.

2 SHEETS—SHEET 1.

Fig. 1.



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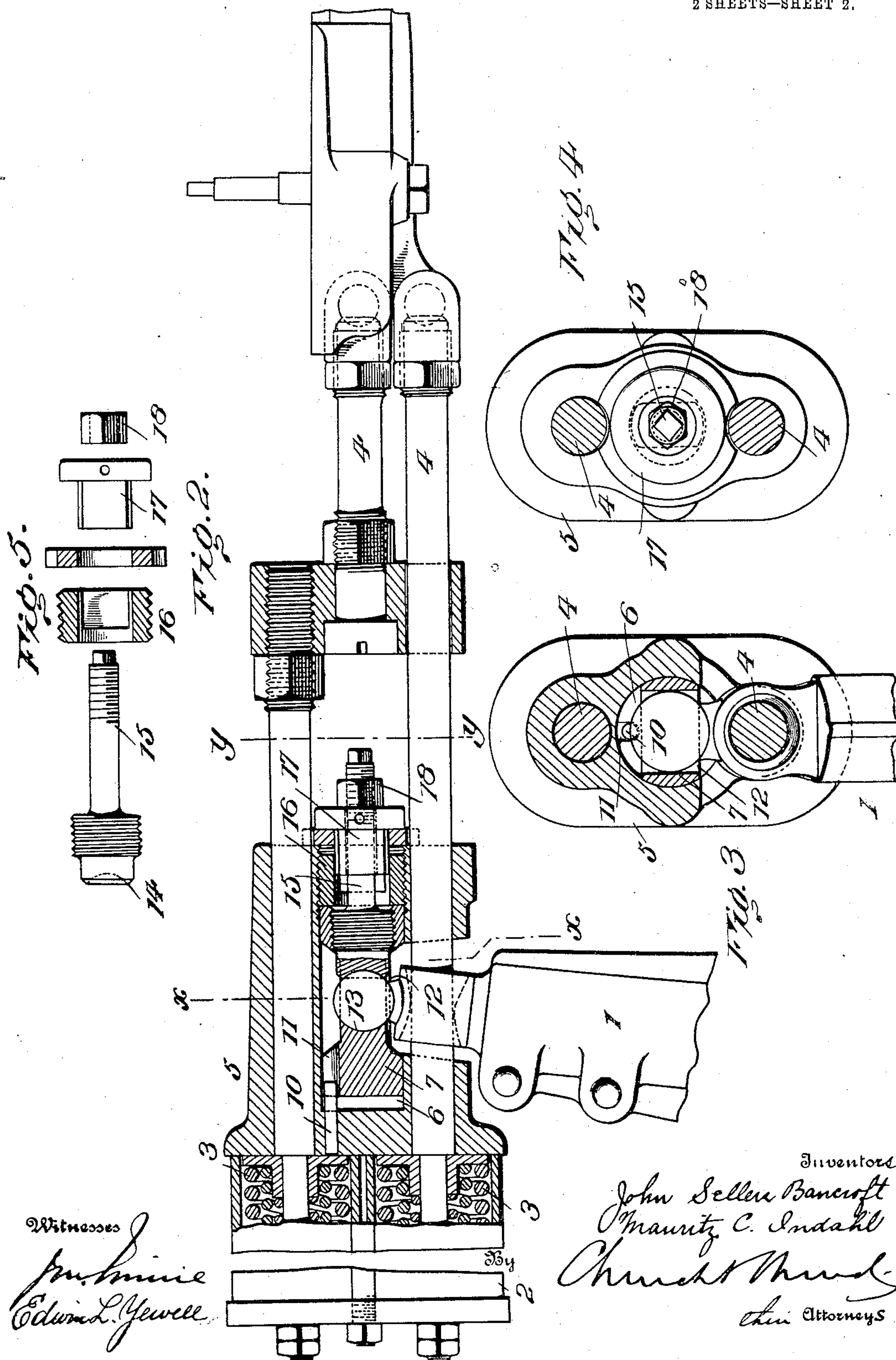
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# UNITED STATES PATENT OFFICE.

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## CENTERING MECHANISM FOR TYPE-CASTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 792,247, dated June 13, 1905.

Application filed December 1, 1904. Serial No. 235,127.

*To all whom it may concern:*

Be it known that we, JOHN SELLERS BANCROFT and MAURITZ C. INDAHL, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Centering Mechanism for Type-Casting Machines; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the figures of reference marked thereon.

The present invention relates to improvements in die-case centering mechanism for type-casting machines; and it consists in the novel construction, combination, and arrangement of parts for coupling the spring-boxes of the duplex actuator with the prime mover so that the required adjustments for positioning the members of the two centering mechanisms may be expeditiously and accurately performed and the lost motion incident to wear may be taken up or compensated for without disturbing the initial adjustment of said centering mechanisms, all as hereinafter fully described, the novel features being pointed out in the claims.

In the accompanying drawings, illustrating a preferred form of embodiment of said invention, Figure 1 is a top plan view of a portion of the die-case centering mechanism to which the improvement is applied. Fig. 2 is a longitudinal section through the coupling devices. Fig. 3 is a transverse section on the line *xx*, Fig. 2. Fig. 4 is a similar section on the line *yy*. Fig. 5 is a detail view showing the bearing-adjusting members detached, the tubular nut and washer being in section. Fig. 6 is a top plan view of the main section of the bearing.

Similar numerals designate like parts in the several figures.

The invention is shown applied to the centering mechanism of Patent No. 749,149, of which 1 is the prime mover, having a fixed range of motion, 2 the casing for the spring-

boxes 3, and 4 the transmitting connections through which each spring-box is independently coupled with the corresponding section of the duplex actuator.

Heretofore the casing 2 has been equipped with a divided bearing for the prime mover, of which one section was supported in fixed relation to said casing and the other section was movable for adjustment. Hence in setting—*i. e.*, adjusting the members of the two centering systems in proper relation to each other—it was customary that the casing should first be applied to the prime mover and the members of the centering systems be then separately adjusted with relation thereto. If now from any cause, such as in taking up wear on the bearing or through inaccurate location of said bearing, the position of the casing with relation to the prime mover was changed or varied from that established at the time of the initial setting of the parts, the correlative action would be changed and a readjustment of the two centering systems rendered necessary. To overcome these and other defects incident to the arrangement referred to, the bearing or coupling uniting the casing with its prime mover is made adjustable as a whole longitudinally of the path traversed by said prime mover and at the same time is equipped with adjusting means to compensate for wear at the bearing-surfaces, so that after preliminary adjustment of the two centering systems the final adjustments may be performed at the coupling with the prime mover, and, moreover, when the bearing-surfaces are adjusted for wear the position of the bearing may be shifted, thereby compensating for incidental displacement without further readjustment of the members of the two centering systems.

The head 5 of casing 2 is formed or provided with a central longitudinal opening forming seat 6 for the reception of a two-part bearing, of which one section is adjustable with respect to the other and both together with respect to the head. To these ends the



main section 7, preferably cylindrical, is fitted to reciprocate longitudinally in the recess in head 2, being held from rotation therein by suitable means, such as a pin 10, engaging a groove 11, and it is provided with a transverse opening 12 for the passage of the head of prime mover or lever 1.

At one side of opening 12 is formed a bearing-surface 13, adapted to receive the spherical head of the lever. The opposing bearing or section 14 is threaded into one end of the main section 7 and is provided with a threaded extension or stem 15, projecting beyond the end of head 2.

Threaded into opening 6 and surrounding stem 15 is a nut 16, and against the outer face of head 2 is fitted a washer forming the seat for a key 17, the latter flanged to engage said washer and provided with a barrel engaging said nut 16 in a manner to permit independent longitudinal motion, but compel simultaneous rotary movement, as by flattening the sides of said key and fitting major diameter into correspondingly-shaped seats in the nut. The stem 15 carries a nut 18, seating upon the end of key 17 and serving to clamp and hold the bearing in adjusted position.

To adjust the two sections of the bearing upon the lever or prime mover, nut 18 is loosened and the key 17 turned in a direction to withdraw nut 16, thus releasing the bearing as a whole, whereupon by turning stem 15 the section of the bearing attached thereto may be advanced or retracted, as desired, to release the prime mover, to apply the bearing thereto, or to reset the two sections for taking up lost motion due to wear. This does not involve any interference with the members of the two centering systems, and to establish, reestablish, or secure the proper positioning of said members relative to the prime mover the key 17 is turned to advance or retract the nut 16, against which the bearing abuts, after which nut 18 is tightened up, the latter operating in a twofold capacity—as a brake to resist accidental displacement of the adjusting devices for bearing 14 and as a clamp for holding the main section 7 firmly clamped against its adjusting nut or member 16.

Having thus described our said invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a centering mechanism for type-casting machines, such as described, the combination with the spring-box casing for the duplex actuators and the prime mover therefor, of a bearing adjustable in the line of movement of the prime mover and provided with relatively adjustable members between which said prime mover is received.

2. In a centering mechanism for type-casting machines such as described a spring-box for duplex actuators provided with a separable bearing and means for adjusting the latter bodily in a direction parallel with the path of the prime mover engaging said bearing.

3. In a centering mechanism for type-casting machines such as described, a spring-box for duplex actuators provided with an adjustable bearing for the prime mover the same comprising a main section supported in ways on the casing and provided with a bearing-surface, an opposing bearing-surface movably mounted upon said main section, and means for adjusting said main section and the bearing upon the casing.

4. In a centering mechanism for type-casting machines such as described, a coupling for connecting the spring-box casing with the prime mover consisting essentially of a main bearing block or section supported to reciprocate in a recess in the head of the casing; an opposing bearing block or section threaded into the main section; a nut threaded into said recess, for positioning the bearing-blocks therein, and means for clamping said bearing-blocks against said nut.

5. In a centering mechanism for type-casting machines a coupling for uniting the spring-casing and its lever or prime mover, the same comprising a main bearing-block movably supported in a recess in the head of the casing; an opposing bearing threaded into the main bearing and provided with a threaded stem; a nut threaded into the recess at one end of the main bearing-block and engaging the latter; a key surrounding said threaded stem and engaging the adjusting-nut; a washer engaging said key; and a nut engaging said threaded stem and the key.

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